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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,384	01/11/2001	Hau H. Duong	A-68718-2/RFT/RMS/RMK	2482

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EXAMINER

SINES, BRIAN J

ART UNIT PAPER NUMBER

1743

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/760,384	Applicant(s) DUONG ET AL.	
	Examiner Brian J. Sines	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/16/2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 1-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1743

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 24 – 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bamdad et al. (U.S. Pat. No. 6,541,617 B1). Regarding claim 24, Bamdad et al. teach a method of analyzing a biochip, wherein the method comprises the steps of: (1) inserting a biochip into

Art Unit: 1743

detection chamber, wherein the biochip comprise a substrate, which comprises a plurality of test sites, wherein each test site comprises: (i) a different capture binding ligand; (ii) a different target analyte; and (iii) a label; and (2) detecting the presence of the label on the biochip (see col. 2, lines 5 – 36; col. 10, lines 20 – 67; col. 11, lines 31 – 62). Bamdad et al. do not specifically teach a method incorporating identical steps employing a second biochip. However, the Courts have held that the mere duplication of parts (or method steps in this case), without any new or unexpected results, is within the ambit of a person of ordinary skill in the art. See *In re Harza*, 124 USPQ 378 (CCPA 1960). Consequently, a person of ordinary skill in the art would accordingly have had a reasonable expectation of success of incorporating the use and subsequent analysis of a second biochip using the identical method steps as those recited for the first biochip, as taught by Bamdad et al., using an analysis device incorporating the use of two analysis stations. The Courts have held that the prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success. See *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986) (see MPEP § 2143.02). Therefore, it would have been obvious to a person of ordinary skill in the art to employ a method of analyzing two biochips as recited in claim 24. Regarding claims 25 – 28, Bamdad et al. teach the use of a scanning fluorescence detector or a fiber optic sensor (see col. 60, lines 1 – 61). It would have been obvious to a person of ordinary skill in the art to analyze the two biochips by moving a detector between the two stations holding each of the biochips (see MPEP § 2144, 2144.02 & 2144.03). It would have been obvious to a person of ordinary skill in the art to analyze the biochips by moving the first analysis station to a detector and moving the second station to a detector. It would have been obvious to a person of ordinary skill in the art to use two

Art Unit: 1743

different detectors for each separate analysis station. Regarding claim 29, Bamdad et al. teach the use of electronic detection (see col. 60, lines 1 – 9). Regarding claims 30 and 31, Bamdad et al. teach that the capture binding ligands are nucleic acid capture probes, the target analytes are target nucleic acid sequences, and the assay complexes are hybridization complexes (see col. 28, lines 8 – 67). Regarding claim 32, Bamdad et al. teach that the labels are covalently attached to the target sequences (see col. 2, lines 5 – 16; col. 4, lines 15 – 67). Regarding claims 33 and 34, the labels would be hybridization indicators and also act as intercalating agents (see col. 2, lines 5 – 16; col. 4, lines 15 – 67). Regarding claim 35, Bamdad et al. teach that the target sequence may be comprised of different target domains, to which the capture probes may hybridize (see col. 8, lines 11 – 34). Regarding claim 36, Bamdad et al. teach that the label probes may each comprise at least one covalently attached label (see col. 2, lines 5 – 36). Regarding claim 37, Bamdad et al. teach the use of fluorescent labels (see col. 41, lines 22 – 36; col. 60, lines 1 – 67). Regarding claim 38, Bamdad et al. teach the use of electron transfer moieties (ETM) (see col. 2, lines 5 – 36; col. 4, lines 15 – 67). Regarding claim 39, Bamdad et al. teach that the ETM's may comprise transition metal complexes, such as metallocenes (see col. 42, lines 22 – 67; col. 43, lines 13 – 67). Regarding claims 41 and 42, it would be obvious to a person of ordinary skill in the art that the detection information would be received from the analysis device analyzing the biochip (see col. 10, lines 31 – 67).

Response to Arguments

Applicant's arguments with respect to claims 10 – 23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Heller teaches methods for electronic clinical diagnostics. Kiel et al. teach an organic semiconductor complex and system.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines, Ph.D. whose telephone number is (571) 272-1263. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jill Warden
Supervisory Patent Examiner
Technology Center 1700